FEDERAL AVIATION ADMINISTRATION

AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS

BIWEEKLY 2000-08

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U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Airworthiness Programs Branch, AFS-610
P. O. Box 26460
Oklahoma City, OK 73125-0460
FAX 405-954-4104

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-01

99-27-02		Cessna	170B, 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, +
99-27-12	S 99-26-13	Agusta	Rotorcraft: A109A and A109A II

Biweekly 2000-02

98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-04		Kaman	Rotorcraft: K-1200
2000-01-06		Rolladen	Glider: LS6-c Sailplane
2000-01-09		General Electric	Engine: CJ610, CF700
2000-01-10	S 98-08-07	Pilatus	PC-7
2000-01-11	S 99-17-07	Eurocopter Deutschland	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1
2000-01-16	S 75-23-08 R5	Cessna	T310P, T310Q, T310R, 320, 320A, 320B, 320C, 320D +
2000-01-19		Eurocopter Deutschland	Rotorcraft: EC 135 P1, EC 135 T1
2000-02-12	E	Bell	Rotorcraft: 407

Biweekly 2000-03

2000-02-09		Agusta	Rotorcraft: AB412
2000-02-14	S 98-13-10	Cessna	182S
2000-02-16		Short Brothers	SC-7 Series 2 and SC-7 Series 3
2000-02-32	S 98-12-21	Eurocopter France	Rotorcraft: SA.315B

Biweekly 2000-04

99-25-08		MD Helicopters	Rotorcraft: 500N
2000-02-12		Bell	Rotorcraft: 407
2000-02-25		Mitsubishi	MU-2B Series
2000-02-26		Harbin	Y12 IV
2000-02-27		Empresa	EMB-110P1 and EMB-110P2
2000-02-28		Aerospace Technologies	N22B and N24A
2000-02-29		Socata	TBM 700
2000-02-30		Twin Commander	600 Series
2000-02-31		Pilatus	PC-12 and PC-12/45
2000-03-06		Eurocopter France	Rotorcraft: SE 3130, SA 3180, SE 313B, SA 318B, +
2000-03-17	S 97-23-01	Fairchild	SA226 and SA227 Series
2000-03-18		Partenavia	AP68TP 300 "Sartacus" and AP68TP 600 "Viator"
2000-03-19		Industrie Aeronautiche	Piaggio P-180
2000-04-01		Cessna	172R, 172S, 182S, 206H, and T206H
2000-04-10		Hoffmann	Propeller: HO27( ) and HO4/27 Series
2000-04-12		Cameron	Balloon: CB2380 and CB2383

Biweekly 2000-05

98-21-21	R1	Bob Fields Aerocessories	Appliance: Electric inflatable door seals
2000-03-09		Cessna	560 Series
2000-04-16		Alexander Schleicher	ASH 25M and ASH 26E sailplanes
2000-04-26		Alexander Schleicher	ASW-27 sailplanes
2000-05-11		Eurocopter France	Rotorcraft: SA.315B, SA.316B, SA.316C, SA 318B, +

Biweekly 2000-06

2000-04-20		Bell	Rotorcraft: 407
2000-04-21		MD Helicopters	Rotorcraft: MD600N
2000-04-25		Bell	Rotorcraft: 407
2000-05-15		Eurocopter France	Rotorcraft: AS355N
2000-05-16		Sikorsky	Rotorcraft: S-61
2000-05-17	S 99-19-23	Eurocopter France	Rotorcraft: EC 120B
2000-05-23		Ayres	S-2R, S2R-G1, S2R-G5, S2R-G6, S2R-G10, S2R-R3S +
2000-05-24		Honeywell International	Appliance: KAP 140 or KFC 225 autopilot system
2000-06-01		Cessna	150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, +

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-06 Cont'd

2000-06-02		Dornier	228-100, 228-101, 228-200, 228-201, 228-202, +
2000-06-03		Bombardier	DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300
2000-06-04		Fairchild	SA226-T, SA226-AT, SA226-T(B), SA227-AT, +
2000-06-06		The New Piper	PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, +

Biweekly 2000-07

2000-06-05		Eurocopter France	Rotorcraft: SA330F, SA330G, SA330J, AS332C, +
2000-06-07		Eurocopter Deutschland	Rotorcraft: MBB-BK 117
2000-07-03		Robinson Helicopter	Rotorcraft: R44

Biweekly 2000-08

2000-04-15		Bell Helicopter	222, 222B, 222U, and 230
99-23-22 R2	Rescission	Transport Category Airplanes	Appliance: Mode "C" Transponder
2000-06-09		Turbomeca	Engine: Arrius 1A Series Turboshaft
2000-06-11		Turbomeca	Engine: Makila 1A and 1A1 Turboshaft
2000-06-12		Turbomeca	Engine: Artouste III B-B1-D Series Turboshaft
2000-07-27		Transport Category Airplanes	Appliance: Honeywell Air Data Inertial Reference Unit
2000-08-02		Agusta	Rotorcraft: A109A, A109AII, and A109C
2000-08-09		Robinson Helicopter	Rotorcraft: R22

BELL HELICOPTER
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-04-15 BELL HELICOPTER TEXTRON CANADA: Amendment 39-11598. Docket No. 99-SW-77-AD.

Applicability: Model 222, serial number (S/N) 47006 through 47089; Model 222B, S/N 47131 through 47156; Model 222U, S/N 47501 through 47574; and Model 230, S/N 23001 through 23038, helicopters, with swashplate drive pin (drive pin), part number (P/N) 222-010-455-003, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue failure of a drive pin and subsequent loss of control of the helicopter, accomplish the following:

(a) Within the next 50 hours time-in-service (TIS), and thereafter at intervals not to exceed 150 hours TIS, inspect for damage or looseness and torque test any drive pin, P/N 222-010-455-003, in accordance with the Accomplishment Instructions of Bell Helicopter Textron Canada Alert Service Bulletins 230-99-16, 222-99-84, or 222U-99-55, all dated February 15, 1999, as applicable. Replace any unairworthy drive pin with an airworthy drive pin.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(d) The inspection and torque test shall be done in accordance with the Accomplishment Instructions of Bell Helicopter Textron Canada Alert Service Bulletins 230-99-16, 222-99-84, or 222U-99-55, all dated February 15, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l'Avenir, Mirabel, Quebec JON1LO, telephone (800) 463-3036, fax (514) 433-0272. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on March 14, 2000.

NOTE 3: The subject of this AD is addressed in Transport Canada (Canada) AD CF-99-19, dated June 9, 1999.

FOR FURTHER INFORMATION CONTACT: Sharon Miles, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5122, fax (817) 222-5961.

Issued in Fort Worth, Texas, on February 17, 2000.
Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service

TRANSPORT CATEGORY AIRPLANES
AIRWORTHINESS DIRECTIVE
APPLIANCE
RESCISSION
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

99-23-22 R2 TRANSPORT CATEGORY AIRPLANES: Amendment 39-11686. Docket No. 2000-NM-81-AD. Rescinds AD 99-23-22 R1, Amendment 39-11473.

Applicability: Transport category airplanes, as listed below, certificated in any category, equipped with any Mode "C" transponder with single Gillham code altitude input, including, but not limited to, the transponder part numbers listed below. Whether a Mode "C" transponder has a single Gillham code altitude input may be determined by reviewing the transponder installation instructions.

Airplane Models:

Airbus Industrie	**Lockheed**	**Boeing (MDC)**	**Bombardier**
A300	L-1011 TriStar	DC-10-30	CL-215-1A10
A310	L-188 Electra	DC-10-40	CL-215-6B11
British Aerospace	**CASA**	DC-9	CL-600-1A11
BAe Avro 146-RJ	CN-235	DC-9-81	CL-600-2A12
BAe ATP	**Dassault Aviation**	DC-9-82	CL-600-2B16
Fokker	Mystere Falcon 50	DC-9-83	**Gulfstream**
F28 Mark 0070	Mystere Falcon 900	DC-9-87	G1159 (G-II)
F28 Mark 0100	Mystere Falcon 200	Boeing 707	G-1159A (G-III)
F28 Mark 1000-4000	Fan Jet Falcon Series G	Boeing 727	G-IV
		Boeing 737	
		Boeing 747	

Mode "C" Transponder Part Numbers:

Rockwell Collins	**Bendix**	**Wilcox**	**IFF**
622-2224-001	066-1056-00	97637-201	APX-100
622-2224-003	066-1056-01	97637-301	APX-101
522-2703-001	066-1123-00		
522-2703-011	2041599-6508		
787-6211-001			
787-6211-002			

This rescission is effective April 20, 2000.

FOR FURTHER INFORMATION CONTACT:
Peter Skaves, Aerospace Engineer, Airplane and Flight Crew Interface Branch, ANM-111, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2795; fax (425) 227-1320.

Issued in Renton, Washington, on April 7, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

TURBOMECA
AIRWORTHINESS DIRECTIVE
ENGINE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-06-09 TURBOMECA: Amendment 39-11650. Docket 99-NE-42-AD.

Applicability: Turbomeca Arrius 1A series turboshaft engines, installed on but not limited to Eurocopter France AS355 series helicopters.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent unexpected power loss, which could result in an uncommanded in-flight engine shutdown, autorotation, and forced landing, accomplish the following:

Installation of Module TU63

~~(a)~~ (a) Install module TU63 in accordance with the Instructions for Incorporation of Turbomeca Arrius Service Bulletin (SB) No. 319 73 0016, Revision 1, dated December 22, 1997, at the earliest of the following after the effective date of this AD:

(1) The next shop visit, or
(2) Within120 cycles-in-service, or
(3) Within 30 days.

Definition

(b) For the purpose of this AD, a shop visit is defined as whenever the engine is removed from the helicopter for maintenance.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

Ferry Flights

(d) ~~(d)~~ Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions required by this AD shall be done in accordance with Turbomeca Arrius Service Bulletin (SB) No. 319 73 0016, Revision 1, dated December 22, 1997. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(f) This amendment becomes effective on June 12, 2000.

FOR FURTHER INFORMATION CONTACT:

Glorianne Niebuhr, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7132, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on March 20, 2000.

David A. Downey Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service

TURBOMECA
AIRWORTHINESS DIRECTIVE
ENGINE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-06-11 Turbomeca: Amendment 39-11652. Docket 99-NE-11-AD.

Applicability: Turbomeca Makila 1A and 1A1 turboshaft engines, installed on but not limited to Aerospatiale AS 332 Super Puma, AS 532 Cougar, and SA 330 Puma helicopters.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent in-flight engine shutdown due to roller bearing failure following oil contamination, accomplish the following:

Inspection and Repair

(a) Within 25 hours time-in-service (TIS) after the effective date of this AD, accomplish the following:

(1) For engines that have been operated with 7.5 centistoke (cSt) oil for more than 100 hours TIS, and for engines whose operators can not show documentation that the engine has been operated with 7.5 cSt oil for 100 hours or less TIS, accomplish the following:

(i) Perform a one-time visual inspection of the scavenge and lubrication systems for obstruction due to coke deposits and repair as required, in accordance with section 2.A. and 2.B. of the 'Instructions for incorporation' section of Turbomeca Makila 1 Service Bulletin (SB) No. A298 71 0137, dated December 22, 1997.

(ii) Replace the oil with approved oil other than 7.5 cSt and then recondition and check the engine oil system in accordance with section 2.C. and 2.D.(1) of Turbomeca Makila 1 SB No. A298 71 0137, dated December 22, 1997, prior to return to service.

(2) For engines that have been operated with 7.5 cSt oil for 100 hours or less TIS, replace the oil with approved oil other than 7.5 cSt and then recondition the engine oil system prior to return to service, in accordance with section 1.A.(2)(b) of Turbomeca Makila 1 SB No. A298 71 0137, dated December 22, 1997.

Alternative Method of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

Ferry Flights

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions required by this AD shall be done in accordance with Turbomeca Makila 1 SB No. A298 71 0137, dated December 22, 1997. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(e) This amendment becomes effective on June 12, 2000.

FOR FURTHER INFORMATION CONTACT:
Glorianne Niebuhr, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7132, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on March 21, 2000.
David A. Downey, Manager, Engine and Propeller Directorate, Aircraft Certification Service.

TURBOMECA
AIRWORTHINESS DIRECTIVE
ENGINE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-06-12 Turbomeca: Amendment 39-11653. Docket 99-NE-33-AD.

Applicability: Turbomeca Artouste III B-B1-D series turboshaft engines, installed on but not limited to Eurocopter SA 315 LAMA and SA 316 Alouette III helicopters .

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent injection wheel cracks, which could result in an in-flight engine shutdown, accomplish the following:

Smoke Check

(a) Following every engine ground shutdown, accomplish the following in accordance with Turbomeca Artouste III Service Bulletin (SB) No. 218 72 0099, dated September 14, 1998:

(1) After every flight, check for smoke emissions through the exhaust pipe, air intake, or turbine casing drain during rundown and after every engine shutdown. If a smoke emission has been noticed, check the fuel system before the next flight to identify the origin of the smoke emissions.

(2) If smoke is not detected, no action is required until the next engine ground shutdown.

(3) If smoke is detected, inspect for fuel flow in accordance with paragraph 2.B.(1) and 2.B.(2) of the referenced SB.

(i) If fuel flow is not detected, prior to further flight, remove the engine from service and replace with a serviceable engine.

(ii) If fuel flow is detected, remove the electric fuel cock from service and replace with a serviceable part in accordance with section 2.B.(4) and 2.B.(5) of the referenced SB .

(iii) Before entry into service, perform an engine ground run and check the fuel system again for smoke emissions through the exhaust pipe, air intake, or turbine casing drain during engine rundown and after shut-down; if smoke emissions still remain after replacement of the electric fuel cock, prior to further flight, remove the engine from service and replace with a serviceable engine.

(b) For the purpose of this AD, a serviceable engine is defined as an engine that does not exhibit smoke emissions.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

Ferry Flights

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the rotorcraft to a location where the inspection requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions required by this AD shall be done in accordance with Turbomeca Artouste III Service Bulletin (SB) No. 218 72 0099, dated September 14, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. This information may be examined at the FAA, New England Region, Office of the Regional

Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(f) This amendment becomes effective on June 12, 2000.

FOR FURTHER INFORMATION CONTACT:

Glorianne Niebuhr, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7132, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on March 21, 2000.

David A. Downey Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service

TRANSPORT CATEGORY AIRPLANES
AIRWORTHINESS DIRECTIVE
APPLIANCE
LARGE AIRCRAFT

2000-07-27 TRANSPORT CATEGORY AIRPLANES: Amendment 39-11683. Docket 2000-NM-83-AD.

Applicability: Transport category airplanes including but not limited to those listed below, certificated in any category; equipped with any Honeywell air data inertial reference unit (ADIRU) having a serial number below 0841 and a part number (P/N) listed below:

Airplane manufacturer	Model	ADIRU P/N
Boeing	757-300 737-600 737-700 737-800	HG2050AC02 HG2050AC03 HG2050AC04 HG2050AC05
Airbus	A319-111, A319-112, A319-113, A319-114, A319-131, A319-132, A320-111, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A330-202, A330-301, A330-223, A330-321, A330-322, A330-323, A340-211, A340-311, A340-212, A340-312, A340-213, A340-313	HG2030AD09
Airbus	A330-202, A330-301, A330-223, A330-321, A330-322, A330-323, A340-211, A340-311, A340-212, A340-312, A340-213, A340-313	HG2030AD10

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent loss of the main sources of attitude data, consequent high pilot workload, and a significant increase in the likelihood of pilot error, accomplish the following:

Inspection and Replacement

(a) Prior to the next flight following any critical inertial reference failure of an ADIRU: Inspect the identification plate of the ADIRU to determine its modification status, in accordance with Honeywell Alert Service Bulletin HG2030AD-34-A0009 (for an ADIRU having P/N HG2030AD09 or HG2030AD10) or HG2050AC-34-A0008 (for an ADIRU having P/N HG2050AC02, HG2050AC03, HG2050AC04, or HG2050AC05), both dated March 9, 2000; as applicable.

(1) If any ADIRU having P/N HG2050AC02, HG2050AC03, HG2050AC04, or HG2050AC05 is not marked as modification 2 or 3: Prior to further flight, replace the ADIRU with an ADIRU as specified in either paragraph (a)(1)(i) or (a)(1)(ii) of this AD, in accordance with Honeywell Alert Service Bulletin HG2050AC-34-A0008, dated March 9, 2000.

(i) Replace with an ADIRU that has P/N HG2050AC03, HG2050AC04, or HG2050AC05; and that is marked as modification 2 or 3. Or

(ii) Replace with a serviceable ADIRU that has P/N HG2050AC03, HG2050AC04, or HG2050AC05; and that is not marked as modification 2 or 3; and that has been determined to have accumulated less than 7,000 operating hours in accordance with the alert service bulletin.

(2) If any ADIRU having P/N HG2030AD09 or HG2030AD10 is not marked with modification 3 or 6: Prior to further flight, replace the ADIRU with an ADIRU as specified in either paragraph (a)(2)(i) or (a)(2)(ii), in accordance with Honeywell Alert Service Bulletin HG2030AD-34-A0009, dated March 9, 2000.

(i) Replace with an ADIRU having P/N HG2030AD09 or HG2030AD10 that is marked as modification 3 or 6; or

(ii) Replace with a serviceable ADIRU having P/N HG2030AD09 or HG2030AD10 that is not marked as modification 3 or 6, and that has been determined to have accumulated less than 7,000 operating hours in accordance with the alert service bulletin.

NOTE 2: For purposes of this AD, a "serviceable" ADIRU is one that satisfies the replacement requirements of paragraph (a)(1)(ii) or (a)(2)(ii), and on which no critical inertial reference failure has occurred.

(b) Installation of all ADIRUs on the airplane that meet the criteria of paragraph (b)(1) or (b)(2) of this AD constitutes terminating action for the requirements of this AD:

(1) ADIRUs that have P/N HG2050AC03, HG2050AC04, or HG2050AC05; and that are marked as modification 2 or 3; or

(2) ADIRUs that have P/N HG2030AD09 or HG2030AD10, and that are marked as modification 3 or 6.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (ACO), FAA, Small Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished, provided that the remaining, functioning ADIRU(s) has accumulated less than 7,000 total operating hours, as specified by Honeywell Alert Service Bulletin HG2030AD-34-A0009 (for ADIRU P/N's HG2030AD09 and HG2030AD10) or HG2050AC-34-A0008 (for an ADIRU P/N HG2050AC), both dated March 9, 2000; as applicable.

Incorporation by Reference

(e) The actions shall be done in accordance with Honeywell Alert Service Bulletin HG2050AC-34-A0008, dated March 9, 2000; or Honeywell Alert Service Bulletin HG2030AD-34-A0009, dated March 9, 2000; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Honeywell, Publications, P.O. Box 21111, Mail Stop DV-10, Phoenix, Arizona 85036. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Chicago Aircraft Certification Office, 2350 East Devon Avenue, Room 323, Des Plaines, Illinois; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on May 3, 2000.

FOR FURTHER INFORMATION CONTACT:

Wess Rouse, Aerospace Engineer, Systems and Flight Test Branch, ACE-117C, FAA, Chicago Aircraft Certification Office, 2350 East Devon Avenue, Room 323, Des Plaines, Illinois 60018; telephone (847) 294-8113; fax (847) 294-7834.

Issued in Renton, Washington, on April 6, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

AGUSTA
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-08-02 AGUSTA: Amendment 39-11688. Docket No. 99-SW-47-AD.

Applicability: Model A109A, A109AII, and A109C helicopters, Serial Number (S/N) 7630, 7633, 7654, 7667, 7671, 7672, 7676, or 7677 with main transmission, part number (P/N) 109-0400-02-5 or 109-0400-03-105, with Gleason crown, P/N 109-0403-07, installed, certified in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the main transmission, loss of rotor drive, and subsequent loss of control of the helicopter, accomplish the following:

(a) Before further flight, determine if a transmission with a S/N specified in Table 1 is installed.

Transmission P/N	Transmission S/N	Gleason Crown S/N
109-0400-02-5	171	A0488
109-0400-02-5	326	A0490
109-0400-03-105	026	A0571
109-0400-03-105	028	A0572
109-0400-03-105	025	A0578
109-0400-03-105	029	A0584
109-0400-03-105	036	A0614
109-0400-03-105	037	A0618
109-0400-03-105	041	A0630
109-0400-03-105	A2-1274	A2-0645
109-0400-03-105	A2-1356	B15919

(b) If the installed Gleason crown, P/N 109-0403-07, S/N is listed in Table 1, before further flight, replace it with an airworthy Gleason crown, P/N 109-0403-07-103, S/N B58264 or subsequent, except S/N B58271.

(1) After installing the replacement Gleason crown, mark the nomenclature "S.M. 109254" on the "Modification Incorporated" area of the additional nameplate, P/N MS27253-2. Update the main transmission "Assembly Historical Record" or equivalent record, with the P/N and S/N of the Gleason crown installed.

(2) If not previously bonded to the transmission, bond the additional nameplate, P/N MS27253-2, with adhesive EA934NA below the main transmission nameplate.

NOTE 2: Agusta Bollettino Technico 109-109, dated June 3, 1999, pertains to the subject of this AD.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(e) This amendment becomes effective on May 1, 2000.

NOTE 4: The subject of this AD is addressed in Registro Aeronautico Italiano (Italy) AD 99-267, dated June 10, 1999.

2000-08-02

FOR FURTHER INFORMATION CONTACT:
Shep Blackman, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5296, fax (817) 222-5961.

Issued in Fort Worth, Texas, on April 7, 2000.
Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

ROBINSON HELICOPTER COMPANY
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-08-09 ROBINSON HELICOPTER COMPANY: Amendment 39-11695. Docket No. 99-SW-69-AD.

Applicability: Model R22 Helicopters, serial numbers (S/N) 0002 through 2862, inclusive, with sprag clutch, part number (P/N) A188-2, S/N 3708 through 3757 inclusive, 3808 through 3893 inclusive, and 3908 through 4207 inclusive, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within 30 calendar days or 50 hours time-in-service, whichever occurs first, unless accomplished previously.

To prevent sprag clutch failure, loss of main rotor RPM during autorotation, and subsequent loss of control of the helicopter, accomplish the following:

(a) Replace sprag clutch, P/N A188-2, S/N 3708 through 3757 inclusive, 3808 through 3893 inclusive, and 3908 through 4207 inclusive, with sprag clutch, P/N A188-2, S/N 4208 or higher.

(b) Remove from the Rotorcraft Flight Manual the Special Pilot Caution, revised March 22, 1999, contained in Robinson Helicopter Company R22 Service Bulletin SB-85, dated March 22, 1999, or the Special Pilot Caution insert in the Normal Procedures Section of the Rotorcraft Flight Manual between pages P.4-8 and P.4-9 required by AD 99-07-17, Docket No. 99-SW-24-AD, Amendment 39-11126 (64 FR 17966, April 13, 1999), as applicable.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Los Angeles Aircraft Certification Office.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation
Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(e) This amendment becomes effective on May 5, 2000.

FOR FURTHER INFORMATION CONTACT:
Elizabeth Bumann, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5265; fax (562) 627-5210.

Issued in Fort Worth, Texas, on April 14, 2000.
Eric Bries, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.